REMARKS/ARGUMENTS

The claims are 1, 3 and 5. Claim 1 has been amended to improve its form and to incorporate subject matter previously appearing in claim 2. Accordingly, claim 2 has been canceled, and claim 3, which previously depended on claim 2, has been amended to depend on claim 1 as amended. In addition, claim 4 has been canceled in favor of new claim 5. Support for the claims may be found, *inter alia*, in the disclosure at page 4, FIGS. 1-8, and the original claims. Reconsideration is expressly requested.

Claims 1-4 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Knudsen U.S. Reissued Patent No. 14,287* in view of *Lemelson U.S. Patent No. 3,084,926* for the reasons set forth on pages 2-4 of the Office Action. Essentially the Examiner's position was (1) that *Knudsen* teaches the helical compression spring recited in the claims, except for the spring being configured as an injection-molded part, (2) that *Lemelson* teaches a spring being configured as an injection-molded part, and (3) that it would have been obvious to one of ordinary skill in the art to have molded the spring of *Knudsen* from a plastic and to have configured the spring as an injection-molded part as taught by

Lemelson to reduce the weight of the spring and to facilitate manufacture of the spring.

This rejection is respectfully traversed.

As set forth in claim 1 as amended, Applicants' invention provides:

1. a helical compression spring (1) (See FIGS. 1-4),

2. having precisely one helical-line-shaped spring body,

3. having several windings (2), and

4. having planar end disks (3),

5. wherein each winding (2) has at least one section or segment (5) that has a lesser incline or pitch in comparison with the pitch or incline of the winding (2), and

6. wherein all the sections or segments (5) are disposed symmetrically to precisely one parting or divisional plane (4) of

the helical compression spring (1).

7. The helical compression spring is an injection-molded part, and

8. each winding (2) has sections or segments (5) that have a lesser pitch or incline in comparison with the pitch or incline of the winding (2).

As set forth in new claim 5, Applicants' invention provides:

1. a helical compression spring (1) (See FIGS. 5-8),

2. having precisely one helical-line-shaped spring body,

3. having several windings (2) and

4. having planar end disks (3),

5. wherein each winding (2) has at least one section (5) that has a lesser pitch in comparison with the pitch of the winding (2), and

6. wherein all the sections (5) are disposed symmetrically to precisely one divisional plane (4) of the helical compression spring (1).

7. The helical compression spring (1) is configured as an injection-molded part, and

8. the sections (5) having a lesser pitch, at the transition to the winding pitch in the direction of a positive winding pitch, in each instance,

9. have a step (7) on their underside, at their beginning, and

10. a step (10) on their top, at their end.

In this way, Applicants' invention provides a helical compression spring which allows an undercut-free shaping of the winding thread of the helical compression spring in the unmolding direction in the region of the parting plane. See page 1, last paragraph, of Applicants' disclosure.

The primary reference to *Knudsen* fails to disclose or suggest

a helical compression spring having the structure recited in claim 1 as amended or in new claim 5 having an upper and lower plate or planar end disk. Instead, *Knudsen's* spring is extended on the underside in the direction of the spring windings. At the top, the spring is constricted.

Thus, *Knudsen* fails to disclose or suggest a helical compression spring wherein all the sections are disposed symmetrical to precisely one parting plane of the helical compression spring and which is configured as an injection-molded part as recited in claim 1 as amended or a helical compression spring wherein each winding has at least one section that has a lesser pitch in comparison with the pitch of the winding, all the sections are disposed symmetrical to precisely one parting plane of the helical compression spring, and the sections having a lesser pitch at the transition to the winding pitch in the direction of a positive winding pitch, in each instance, have a step on their underside at their beginning and a step on their top at their end as recited in new claim 5.

Moreover, as the spring disclosed in *Knudsen* is not configured as an injection-molded part, it is respectfully submitted that *Knudsen's* spring is not of the same type as the spring as

Applicants' helical compression spring as recited in claim 1 as amended and in new claim 5. In *Knudsen*, one of the planar end disks has a flange that is directed inward, which disrupts the function of the spring. Consequently, *Knudsen's* spring is entirely unsuited for creating an undercut-free shaping of the winding thread of a helical compression spring in the unmolding direction. Thus, it is respectfully submitted that a person skilled in the art has no reason to refer to the *Knudsen* reference to solve the problem which was faced by Applicants.

The defects and deficiencies of the primary reference to *Knudsen* are nowhere remedied by the secondary reference to *Lemelson*. *Lemelson* has geometrical figures at the upper and lower end in FIG. 2, which are connected with the related end of the spring. A hollow body 36 is connected with the upper spring; a hollow foot 39 is connected with the lower end. Thus, there is no disclosure or suggestion in *Lemelson* of a helical compression spring as recited in amended claim 1 wherein each winding has at least one segment that has a lesser incline in comparison with the incline of the winding, all the segments are disposed symmetrically to precisely one divisional plane of the helical compression spring, and each winding has segments that have a lesser incline in comparison with the incline of the winding. Similarly, there is no

disclosure or suggestion of a helical compression spring as recited in new claim 5 wherein each winding has a least one segment that has a lesser incline in comparison with the incline of the winding, all the segments are disposed symmetrically to precisely one divisional plane of the helical compression spring, wherein the segments having a lesser incline, at the transition of the winding incline in the direction of a positive winding incline, in each instance, have a step on their underside at their beginning, and a step on their top, at their end.

Moreover, as *Lemelson* discloses a unit of an axle having a helical spring formed onto it, it is respectfully submitted that *Lemelson's* compression spring is not a pressure spring as such, but rather a spring-axle combination cast in one piece. To this extent, it is respectfully submitted that a person skilled in the art would have no reason to refer to *Lemelson* at all to accomplish the task to which Applicants' invention is directed.

Moreover, *Lemelson* fails to disclose or suggest any recognition of the possible effect of achieving an undercut-free shaping of the winding thread of the helical compression spring in the unmolding direction in the case of separate production of the spring as an integral part of a larger part. Accordingly, it is

respectfully submitted that claim 1 as amended and new claim 5, together with claim 3 which depends on claim 1, as amended, contain patentable and unobvious subject matter.

In summary, claims 1 and 3 have been amended, claims 2 and 4 have been canceled, and new claim 5 has been added. In view of the foregoing, withdrawal of the final action and allowance of this application are respectfully requested.

Respectfully submitted,
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I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on January 15, 2008.

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